DOCUMENT RESUME

ED 130 481 EC 091 792

AUTHOR Osguthorpe, Russell T.
TITLE The Hearing Peer as a Provider of Educational Support to Deaf College Students.
PUB DATE Apr 76
NOTE 21p.; Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, California, April 19-23, 1976, Session 23.01)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS College Students; *Deaf; Exceptional Child Research; Higher Education; *Peer Teaching; *Tutoring
IDENTIFIERS *Note Taking

ABSTRACT

The feasibility of employing hearing college students as tutor/notetakers for deaf students was examined with 25 deaf and 10 hearing students. Hearing Ss were given an intensive training program in manual communications, notetaking, and tutoring, and assigned to take notes for and tutor the deaf Ss who were enrolled in classes for the hearing. Data from questionnaires administered to participants and faculty indicated that the program was effective in that tutor/notetakers felt competent and most deaf Ss rated their tutor/notetaker as a competent provider of support. (Author/IM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED130481

Session 23.01

THE HEARING PEER AS A PROVIDER OF EDUCATIONAL SUPPORT TO DEAF COLLEGE STUDENTS

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Russell T. Osguthorpe

National Technical Institute for the Deaf

Abstract

In order to evaluate the feasibility of employing hearing college students as tutor/notetakers for deaf students, a project was initiated in the summer of 1975. Following an intensive training program in manual communications, notetaking and tutoring, 10 hearing students were assigned to take notes and tutor 25 deaf students enrolled in classes for the hearing. At the conclusion of Fall Quarter, three parallel questionnaires were individually administered to participating students, faculty, and tutor/notetakers. The results showed that participants in general viewed the program to be effective at meeting its objectives. Ninety percent of the faculty were highly positive about the program continuing. Tutor/notetakers all felt competent in their ability to take quality notes. The four who had significant experience tutoring also felt confident in their ability to aid the students in comprehending the content of the course. Most students rated their tutor/notetaker as a competent provider of support. It can be concluded that hearing peers can be trained to provide quality educational supports for deaf college students.

EC091792

When a deaf college student enrolls in a course designed primarily for hearing students, some type of educational support is usually required. At the National Technical Institute for the Deaf (NTID), these supports fall into three categories: 1) interpreting, 2) notetaking, and 3) tutoring. Interpreting is the process of translating spoken language into visual language (usually with "simultaneous communication" which includes signing, lip movement and facial expression). Providing an interpreter in the classroom allows the deaf student to process the lecture and participate in classroom discussions. Notetaking provides the deaf student with a permanent record of the class proceedings. Most deaf students have difficulty taking their own notes for several reasons. One of the most obvious reasons is that the deaf student must focus attention on the interpreter and therefore, cannot look down to write. Tutoring, the third type of support, is offered to students whose language development and/or study skills have not yet reached a level that would allow the students to take full advantage of the notetaking and interpreting services. In the remainder of this paper, we will focus on the tutoring and notetaking supports. (For further information on interpreting services, see Nowell and Stuckless, 1974.)

Notetaking

Little research has been aimed at identifying the characteristics that distinguish good notes from poor notes. Some writers suggest that notetaking should involve a form of content analysis in which the notetaker develops concept trees and diagrams depicting content structure (Carmen and Adams, 1972). Others intimate that taking notes is essentially

the same as verbatim transcription (Carter and Van Matre, 1975). Most such studies have been designed to determine the learning effects of the notetaking process on the notetakers themselves. Since deaf students usually do not take their own notes, we are interested in this paper in the "useability" of the notes, once they are taken. In a study designed to validate an effective process for hearing volunteers taking notes for deaf students, Stuckless (1969) suggested nine characteristics of quality notes. Included in these suggestions were that notetakers use legible handwriting, record important lecture points, and define difficult vocabulary words. It should be remembered that the study was not designed to assess the relative importance of each of the characteristics - but rather to evaluate an overall notetaking process. One of the study's findings showed that 35% of the deaf students were not satisfied with the quality of the "volunteer" notes.

One obvious alternative to having hearing classmates volunteer to take notes for deaf students is to hire professionals. At NTID full-time educational specialists assigned to the various colleges in RIT have been able to cover many courses as professional notetakers and resource tutors. As the enrollment of NTID has increased, however, it has been more difficult to cover all of the students needing support with professional notetakers and tutors. Since it is projected that the enrollment and percentage of cross-registered deaf students will continue to rise, the need for alternate means of supportive education is evident.

Tutoring

In recent years, educators and researchers have become more interested in the tutorial approach to learning. In the context of this paper, we will focus our attention on tutorial approaches which rely on nonprofessionals as the tutors. The effects of using nonprofessionals as tutors have been documented with a variety of populations acting as tutors and learners (Harrison, 1972; Melaragno, 1976; Osguthorpe and Harrison, in press). Several conclusions can be drawn from the research on tutoring:

1) Nonprofessionals need to be provided with structured teaching activities (Harrison, Note 2).
2) Nonprofessionals need training to use structured activities (Osguthorpe and Harrison, Note 3).
3) With training and structured teaching activities, nonprofessionals can effect significant gains in learners (Osguthorpe and Harrison, Note 4).
4) Management and supervision must be provided to ensure maximum student growth (Mayhall, et al., 1975; Keele and Harrison, Note 5).

At NTID professionals have usually assumed the tutoring responsibility. With an increasing number of students needing tutoring, the exclusive use of professionals has become financially unfeasible. The purpose of this paper is to evaluate an alternative to professional supportive education: peer tutoring and notetaking. The suggestion is not that peer tutor/notetakers replace professional support personnel, but rather augment the professional's ability to reach students needing

support. Can hearing students be trained as tutors for deaf peers? Can they be trained to take quality notes for deaf peers? Can they develop a working relationship with professors?

Method

Subjects

Ten college age hearing students were selected to participate as tutor/notetakers (T/N's) during Fall Quarter, 1975. These T/N's were chosen from among 25 students completing the two week summer training program on tutoring and notetaking. Each of the students had previously completed a six week interpreter training program. T/N's were selected on the basis of: 1) expressed interest to become a T/N, 2) performance during the summer training program, and 3) willingness to fit tutoring and notetaking into their personal academic schedules.

Summer Training Program

The training program was designed around a four stage process of: 1) explanation, 2) modeling, 3) role-play or simulation and 4) applied practice. This process was used to teach T/N's to take notes, tutor, and prepare course "Help Packets" for deaf students. T/N's were trained to define difficult vocabulary in the notes, use white space effectively, illustrate with examples, and draw diagrams and other visuals to help clarify concepts in the notes. T/N's were then trained in general techniques of tutoring: 1) establishing rapport, 2) keeping records, 3) diagnosing students' needs, 4) remediation and 5) evaluation. The Help

Packet training consisted of ideas for gathering information essential for success in a course. T/N's were shown methods for identifying critical concepts and then defining them for deaf students. Each T/N was provided with a manual describing each of the topics covered in the training program (Osguthorpe, Note 6).

Management System

A management system was developed for purposes of control and evaluation. Each T/N reported to the project manager weekly. During this meeting, additional training was provided the T/N and progress records were maintained.

Procedures

Each T/N was assigned to cover one or two RIT courses containing deaf students. Nine of the ten tutors were assigned to general education courses, while one was assigned to cover courses in engineering. During the quarter, all original notes were kept on file and used to help T/N's improve their notetaking skills. There were also records kept of each tutoring session using the tutor log and procedures developed for this project. These logs were discussed periodically with T/N's and suggestions were made for improvement of tutoring techniques.

During the final two weeks of the quarter a series of questionnaires were administered. These questionnaires were designed to answer the basic questions stated earlier. A separate questionnaire was administered to T/N's, students, and professors. Trained interviewers administered the questionnaires on a 1:1 basis to students and faculty.

T/N's completed the self-report questionnaires themselves. Each questionnaire was designed with as similar an item pool as possible. In this way, it was possible to increase the reliability and validity of the data without spending a great deal of time and money on instrument development (Van Mondfrans, Note 7).

Data Analysis

Since the n's were so small and the data were considered tentative, no attempt was made to "overanalyze" the numerical results. It was anticipated that means and standard deviations on the variables that were cross-measured would be the most meaningful form of data analysis.

Results

Notetaking

The results of the questionnaire showed that both T/N's and students generally perceived the notes to be of a high quality. The differences between T/N responses and those of students were relatively small. In Table 1, it can be seen that the largest difference between means occurred on the item labeled "worth as a study aid." There was a trend showing that students saw the notes as less valuable as a study aid than T/N's. The next largest discrepancy occurred as raters responded to the "completeness" of the notes. Students were apparently less confident than T/N's that the notes contained all of the needed information. It can also be seen in Table 1 that there was more variability among student raters than among T/N's.

Table 1

Notetaking Skills

variable measured	Possible Points	Tutor Rating Self		student rating tutor	
		Mean	S.D.	Mean	S.D.
legibility	5	3.71	1.11	4.07	1.20
completeness	5	4.62	.74	3.78	1.36
ease of comprehension	5	4.00	1.00	3.60	1.50
worth as study aid	5	4.66	.57	3.57	1.15
TOTAL	20	17.62	2.38	15.46	4.50

Tutoring

Six semantic differential items were used to assess tutoring skills. In Table 2, it can be seen that both T/N's and students rated the tutoring as generally positive. Students were most positive about how "personal" the tutoring was. They were least positive concerning the amount of improvement the T/N had shown during the quarter. As with the notetaking items, there was a high degree of agreement between students and T/N's concerning tutoring skills.

Communication Skills

One component skill of tutoring deaf students that is of special importance is the ability of the T/N to communicate with the student. Students and T/N's were asked to rate both expressive and receptive communication skills. Table 3 shows that the variance among the two rating groups was nearly identical. It should be noted that the students perceived a smaller difference (.28) between expressive and receptive skills than did T/N's as they rated themselves (.67).

Tutor/Notetaker Competencies

Three items on the questionnaire were designed to assess the overall ability of the T/N's to perform their job functions. The first of the items asked T/N's, students and teachers to project the academic grade each T/N would receive if the T/N were taking the course for credit as a student. As seen in Table 4, the raters were in close agreement. Most raters predicted that T/N's would receive A's in the course in which they were tutoring and notetaking. The second item was

Table 2

Tutoring Skills

variable measured	Possible Points	Tutor Rating Self		student rating tutor	
		Mean	S.D.	Mean	S.D.
effective	5	4.66	.57	4.10	.87
personal	5	4.66	.57	4.60	.69
worth the time	5	4.00	1.00	4.00	.94
enjoyable	5	4.00	.00	4.11	.78
improving	5	4.20	.44	3.88	.92
available	5	4.37	.51	4.10	.87
TOTAL	30	25.66	.57	24.66	4.18

Table 3

Communication Skills of Tutor-notetakers

variable measured	Possible Points	Tutor Rating Self		student rating tutor	
		Mean	S.D.	Mean	S.D.
expressive communication	5	4.50	.83	4.28	.82
receptive communication	5	3.83	1.02	4.00	1.03

Table 4

Tutor-Notetaker Competencies

variable measured	Possible Points	Tutor Rating Self		student rating tutor		Teacher Rating Tutor	
		Mean	S.D.	Mean	S.D.	Mean	S.D.
grade projection If the tutor had taken course for credit	5	4.62	.47	4.26	.72	4.66	.57
Tutor's grasp of subject matter	5	4.75	.46	4.00	1.24	4.50	.54
tutor as "competent"	5	4.14 (S) 4.00 (T)	1.06 (S) 1.73 (T)	4.35	.74	4.87	.35

designed to measure the T/N's grasp of the subject matter. Table 4 shows that T/N's were highly confident in their own ability to comprehend the subject matter of the course. Teachers also perceived the T/N's as competent in the course content. Students were generally positive, but varied more than the T/N's or teachers in their ratings.

The final item directed at assessing overall skill of the T/N's asked raters to use a scale marked "competent" to "incompetent." T/N's were asked to predict how both teachers and students would rate them on this item. Table 4 shows that, in this case, T/N's were more variable in their responses than were the other rater groups. The T/N mean for the item was slightly lower than students and considerably lower than teachers (who nearly all rated their T/N as a "5" in competence).

Tutor/Professor Contact Time

Table 5 displays the results of an item assessing the amount of time the T/N spent with the instructor going over notes, determining course objectives, and discussing strategies for meeting the needs of the deaf student(s) enrolled in the course. As seen in Table 5, this item produced highly variable results. Certain teachers perceived their contact time with the T/N to be much longer than did the T/N. Most T/N's said they spent about an hour in personal consultation with the professor during the entire quarter.

Free Response Items

Each form of the questionnaire contained several open ended questions. One overriding concern surfaced within each rating group - the

Table 5

variable measured	Possible Points	Tutor Rating Self		Teacher rating Tutor	
		Mean	S.D.	Mean	S.D.
tutor-prof. contact time	?	1.31	.53	2.60	3.99

T/N's relationship with the professor. Students, T/N's and professors alike mentioned the need for more contact time between the professor and the T/N. There were no other obvious commonalities among the raters on the free response items. T/N's did voice some concerns about the awkwardness of monitoring student progress in the course, the difficulty of being a friend and a professional to the student, and the need to become sensitized to each student's ability levels. Professors were generally positive in their open assessment of the program. They were impressed with the T/N's skills, the T/N's professional attitude, and the effects that the T/N's seemed to have on the students. Some professors thought that tutoring should be mandatory for students. One teacher thought that he should be the tutor rather than the T/N. When asked to suggest improvements, students most often responded by saying that the T/N was "already good" and could not improve. Some students were concerned that the notes could be made more complete or more legible and that the T/N should be more expert in the course content.

Discussion

The results of Fall Quarter, 1975, indicate that hearing college peers can be trained to provide quality educational support to deaf students. The evaluation model used did not allow for traditional control groups (randomly assigning some deaf students to courses with no support provided.) For this reason we can only speculate (based on previous experience in supportive education) that the T/N's had some positive effects on student growth. We can conclude, however, that most

students receiving support from T/N's perceived the support to be of a high quality and needed. We can also conclude that most participating professors viewed the T/N's as competent providers of support and were anxious for the program to be continued. T/N's, themselves, generally felt confident in their ability to provide needed support to deaf students.

Limitations

What can we not conclude from the results of this pilot study? First, we cannot say that all deaf college students will have confidence in a peer T/N. There was some evidence to suggest that the most competent deaf students accept the T/N's notes but would never request tutoring. In essence, this may mean that some deaf students see the hearing peer as no more competent than themselves in the course content. Second, we cannot say that all professors wish to have a paraprofessional in their classroom providing support to deaf students. The reasons for this vary. Some professors feel that the T/N dilutes the course content and misinforms the student. Some feel that paraprofessional support can never compensate for the deaf student's severe lack of prerequisite skill upon entering the course. Third, we cannot conclude from present data that any hearing college student can become an effective T/N with the training programs employed. There is some indication that in order to be a successful T/N, a hearing peer must be 1) an excellent student (high GPA), 2) willing to schedule tutoring in the evenings, 3) willing to acquire good manual communication skills, and 4) willing to be constantly evaluated by professionals and students.

The Future

Peer support will continue as an augmentation to professional support services at NTID. As the project moves from research and development into the implementation phase, project management will be assumed by professional support providers. Continued emphasis will be placed on data collection and program improvement. Part of the management process will include T/N evaluation (Osguthorpe, Note 8). Since the program has implications for use in other institutions where the deaf are enrolled with the hearing, a project will soon be initiated outside the environment of NTID.

Reference Notes

1. Stuckless, E. R. A notetaking procedure for deaf students in regular classes. Occasional papers, National Technical Institute for the Deaf, Rochester, New York, 1969.
2. Harrison, G. V. The effects of trained and untrained student tutors on the criterion performance of disadvantaged first graders. Paper presented at the California Educational Research Association Annual Meeting, Los Angeles, California, March, 1969.
3. Osguthorpe, R. T. and Harrison, G. V. Training parents in a personalized system of reading instruction. Paper presented at the annual meeting of the National Conference on Personalized Instruction, Washington, D. C., 1976.
4. Osguthorpe, R. T. and Harrison, G. V. Training nonprofessionals to tutor low achievers in math. Paper presented at the annual meeting of California Educational Research Association, San Francisco, California, November, 1974.
5. Keele, R. and Harrison, G. V. The Tutor manager: An emerging specialist in the public schools. Paper presented at the annual meeting of the California Educational Research Association, Los Angeles, California, November, 1973.
6. Osguthorpe, R. T. General techniques for tutoring deaf college students. Internal publication, National Technical Institute for the Deaf, Rochester, New York, 1975.

7. Van Mondfrans, A. P. The multiple data point method. Paper presented at the traveling training institute on educational evaluation of the American Educational Research Association, Salt Lake City, Utah, November, 1974.

8. Osguthorpe, R. T. The support manager: A guide for the manager of peer tutoring and notetaking for deaf college students. Internal publication, National Technical Institute for the Deaf, Rochester, New York, 1976.

References

Carmen, R. A. and Adams, W. R. Study skills: A student's guide for survival. New York: John Wiley and Sons, 1972.

Carter, J. F. and Van Matre, N. H. Note taking versus note having. Journal of Educational Psychology, 1975, 67, 900-904.

Harrison, G. V. Tutoring: A remedy reconsidered. Improving Human Performance: A Research Quarterly, 1972, 1, (4), 1-5.

Mayhall, W. F., et al. Supervision and site of instruction as factors in tutorial programs. Exceptional Children, 1975, 42, 3, 151-154.

Melaragno, R. J. Tutoring with students: A handbook for establishing tutorial programs in schools. Englewood Cliffs, New Jersey: Educational Technology Publication, 1976.

Nowell, R. C. and Stuckless, E. R. An interpreter training program. Journal of Rehabilitation of the Deaf, 1974, 7, 69-75.

Osguthorpe, R. T. and Harrison, G. V. The effects of pre-remedial instruction on low achievers' math skills and classroom participation. Reading Improvement, in press.

END

DEPT. OF HEW

NAT'L INSTITUTE OF EDUCATION

ERIC

DATE FILMED

MAR.4 77